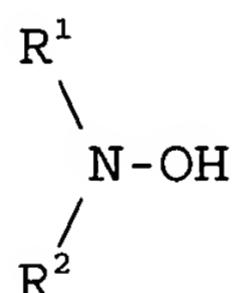


CLAIMS

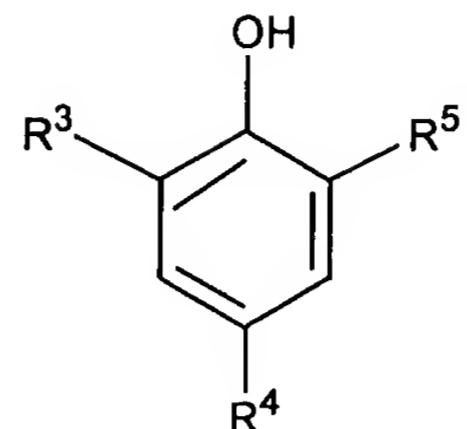
1. A composition for stabilization of vinyl monomers; the composition including (a) at least one alkyl hydroxyl amine compound and at least one sulfide compound, or (b) at least two alkyl hydroxyl amine compounds and at least one phenolic compound.
2. The composition of claim 1 wherein the amine compound is an alkylhydroxylamines or its corresponding amine oxide.
3. The composition of claim 1 wherein amine components are 10-90 wt.% of the total composition.
4. A process for the stabilization of dienes, vinyl aromatic monomers, or acrylic acid and its esters by the addition of the composition of claim 1.
5. The composition of claim 1 wherein each of the alkylhydroxylamine compounds has the general formula:



where  $R^1$  and  $R^2$  are the same or different, and can be hydrogen, alkyl, hydroxyalkyl, alkoxyalkyl, and sulfonated alkyl groups, cyclic or branched, but cannot both be H, a H and a methyl, or both be methyl.

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6. The composition of claim 1 wherein the phenolic compounds has the formula:

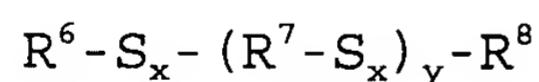


wherein R<sup>3</sup> and R<sup>5</sup> are the same or different, and can be hydrogen, alkyl, hydroxyl, and alkaryl groups; and R<sup>4</sup> is C<sub>1</sub>-C<sub>20</sub> alkyl, alkanoic acid ester, alkaryl, alkylamino, or amine groups.

7. The composition of claim 1 wherein the stabilizer is comprised of diethylhydroxylamine (DEHA), dibutylhydroxylamine (DBHA), and 4-tert- butylcatechol (TBC).

8. The composition of claim 7 comprised of 25-45% DEHA, 25-45% DBHA, and 20-40% TBC.

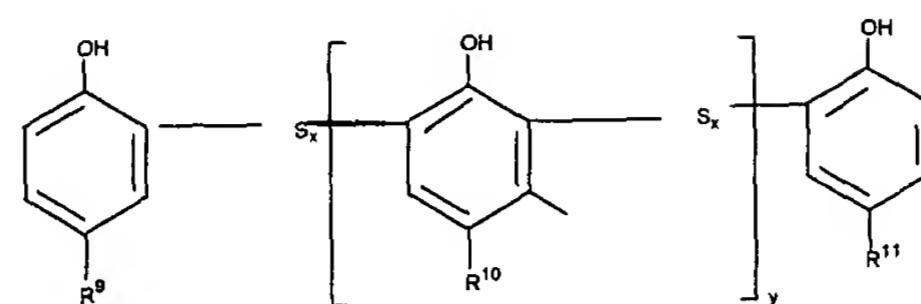
9. The composition of claim 1 wherein the sulfide compound has the general formula:



wherein each x is independently a number between 1-10, y is a number between 0-50 and R<sup>6</sup>, R<sup>7</sup> and R<sup>8</sup> are the same or different, and can be alkyl and aryl groups.

10. The composition of claim 9 wherein the aryl group is phenolic.

11. The composition of claim 9 wherein the sulfide is an alkyl phenol sulfide having the formula:



wherein each x is independently a number between 1-10  
y is a number between 1-50, preferably 1-20  
and R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> are each 1,1-dimethylpropyl.

12. The composition of claim 11 therein the sulfide is a amylphenoldisulfide polymer.

13. The composition of Claim 1 used to stabilize butadiene, isoprene or styrene.

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